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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/090,343	03/04/2002	Ashley G. Price		4010

7590

09/11/2003

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EXAMINER

JOHNSON, EDWARD M

ART UNIT

PAPER NUMBER

1754

DATE MAILED: 09/11/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/090,343

Applicant(s)

PRICE ET AL.

Examiner

Edward M. Johnson

Art Unit

1754

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 21 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-115 is/are pending in the application.
- 4a) Of the above claim(s) 34-57, 65-88 and 96-115 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-33, 58-64 and 89-95 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Election/Restrictions***

1. Applicant's election with traverse of Group I, claims 1-33, 58-64, and 89-95 in Paper No. 5 is acknowledged. The traversal is on the ground(s) that all of the art classes referred to would properly be searched. This is not found persuasive because a search of all of the respective classes and subclasses outlined in the restriction requirement would not be required for each invention outlined therein. It is argued that the claims in Group I... be allowable in a single application. This is not persuasive because it is not the standard by which a proper restriction is made. Even if all groups could be allowed in one application, as Applicant asserts, the inventions are still distinct for reasons already of record (see the previously mailed restriction requirement). It is also noted that Applicant does not allege or admit that the different inventions are not patentably distinct. It is argued that furthermore, the Examiner... in this application. This is not persuasive because all groups are not related as combination/subcombination, as Applicant appears to suggest, and also because the question of whether or not combination is encouraged appears irrelevant to whether the instant restriction requirement is proper.

Art Unit: 1754

The requirement is still deemed proper and is therefore made FINAL.

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 12, 29, 58-64 and 89-95 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 12 and 29, "solid solution" appears contradictory because solid suggests a non-liquid and solution suggests a liquid.

Claims 58-64 and 89-95 depend from nonelected claims.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Art Unit: 1754

5. Claims 1-4, 7-18, 21-29, 32-33, 58-64, and 89-95 are rejected under 35 U.S.C. 102(b) as being anticipated by Khare et al. US 5,726,117.

Regarding claims 1 and 15, Khare '117 discloses a sorbent composition comprising manganese oxide (see column 2, lines 29-35), zinc silicate and/or zinc aluminate (see column 2, lines 50-55 and 63-67), nickel oxide (see column 3, lines 45-50) as oxide or elemental form (see column 4, lines 6-10).

Regarding claims 2-3, 7-12, 16-17, and 21-29 Khare '117 discloses 5-10% nickel and/or cobalt oxide (see column 3, lines 45-46 and 51-54), and 15-60% zinc oxide or silicate (see column 2, lines 51-52 and 60-61) and 5-15% silica and/or alumina (see column 2, lines 35-44).

Regarding claims 4, 18, 58-64, and 89-95, Khare '117 discloses 1-30% manganese oxide (see column 2, lines 33 and 37-40)

Regarding claims 13-14 and 32-33, Khare '117 discloses extrudates (see Example 1) and colloidal particles of 10-10,000 angstroms (see column 2, lines 10-15).

6. Claims 1-29, 32-33, 58-64, and 89-95 are rejected under 35 U.S.C. 102(b) as being anticipated by Moskovitz et al. US 5,948,726.

Art Unit: 1754

Regarding claims 1 and 15, Moskovitz '726 discloses a sorbent composition comprising alumina and oxides of manganese, zinc, nickel, and/or cobalt (see column 13, lines 27-35) with binder that comprises silica (see claims 1 and 4).

Regarding claims 2-3, 7-12, 16-17, 21-29, Moskovitz '726 discloses 1-90% oxides of nickel, cobalt, and/or zinc (see 13, lines 27-35 and claim 30) and 20 parts alumina and silica (see column 12, lines 55-65).

Regarding claims 4-6, 18-20, 58-64, and 89-95, Moskovitz '726 discloses up to 50% manganese oxide (see Table 2).

Regarding claims 13-14 and 32-33, Moskovitz '726 discloses extruding, spheres, pellets, and a particle size of 5-250 microns (see column 10, lines 20-22 and 43-48).

7. Claims 1-4, 7-18, 21-23, 27-29, 32-33, 58-64, and 89-95 are rejected under 35 U.S.C. 102(b) as being anticipated by Thakur et al. US 5,134,108.

Regarding claims 1 and 15, Thakur '108 discloses a catalyst comprising a combination of oxides of manganese, nickel, and zinc (see abstract) in different valence states (see column 4, lines 18-20) silica, and alumina (see column 1, lines 24-27).

Regarding claims 2-4, 7-12, 16-18, 21-23, 27-29, 58-64, and 89-95, Thakur '108 discloses 3-10% manganese oxide and up to 15% oxides of manganese, nickel, cobalt, and/or zinc oxide (see

Art Unit: 1754

column 3, lines 15-24 and paragraph bridging columns 4-5) in solution (see claim 1).

Regarding claims 13-14 and 32-33, Thakur '108 discloses pellets (see column 10, lines 40-43) and 16-20 micron diameter particles (see abstract).

8. Claims 1-33, 58-64, and 89-95 are rejected under 35 U.S.C. 102(b) as being anticipated by Schlaefer et al. US 4,078,004.

Regarding claims 1 and 15, Schlaefer '004 discloses a composition comprising crushed perlite and iron or cobalt molybdate (see abstract and column 1, lines 58-63) wherein the perlite comprises silica, alumina, and manganese oxide (see column 2, lines 53-60).

Regarding claims 2-3, 7-12, 16-17, 21-23, and 27-29, Schlaefer '004 discloses 0.01 to 20 percent of Zn and/or Co (see column 5, lines 3-4) and 0-20% nickel (see column 5, line 15).

Regarding claims 4-6, 18-20, 58-64, and 89-95, Schlaefer '004 discloses 1-50% manganese oxide (see column 5, line 14).

Regarding claims 13-14 and 32-33, Schlaefer '004 discloses extruding (see Example 8) spheres (see column 3, lines 33-38), and up to 25% with a diameter of less than 10,000 angstroms (see Example 11).

Art Unit: 1754

Regarding claims 24-26, Schlaefer '004 discloses 0-50% Si (see column 4, lines 33 and 46).

Regarding claims 30-31, Schlaefer '004 discloses expanded and crushed/fragmented perlite (see abstract and column 3, lines 12-38).

### **Conclusion**

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Wade 3,715,247 discloses a composition comprising expanded perlite, manganese, and various other metals (see column 3, lines 36-42, Tables I-III, and claim 1).

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edward M. Johnson whose telephone number is 703-305-0216. The examiner can normally be reached on M-F 6:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley S. Silverman can be reached on 703-308-3837. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the



Application/Control Number: 10/090,343

Page 8

Art Unit: 1754

receptionist whose telephone number is 703-308-0661.

EMJ

  
STANLEY S. SEVERMAN  
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